REMARKS

Claims 7-9 and 12-18 are pending. By this Amendment, Claims 9 and 16 are amended. Applicant respectfully submits no new material is presented herein.

In the Abstract

The Abstract of the disclosure is objected to because the Abstract does not set for the nature and the gist of the invention. Specifically, the Office Action objects to the Abstract for failing to indicate that the invention is directed to measuring internal resistance of the magnetic field sensing element. Enclosed herein is a Substitute Abstract to be substituted for the originally filed Abstract and believed to be responsive to the objection. A marked-up copy of the originally filed Abstract is also enclosed indicating the amendments made therein. Accordingly, Applicant respectfully requests withdrawal of the objection.

Claim Objections

Claims 9 and 16 are objected to because the scope of the claims is vague as to what type of calculation is performed to determine the correction factor. Applicant has amended the claims responsive to the objection. Accordingly, Applicant respectfully requests withdrawal of the rejection.

Claims Rejected—35 U.S.C. § 103

Claims 7-9 and 12-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,359,495 to McMaster et al. ("McMaster") in view of U.S. Patent No. 5,818,225 to Miekley et al. ("Miekley"). Applicant respectfully traverses the rejection.

Claim 7 recites a method to compensate for temperature dependence of a measuring device including, among other steps, receiving a temperature signal

corresponding to the internal resistance of a magnetic sensor element; determining a correction factor using the temperature signal and temperature coefficients of the magnetic sensor element; and correcting an output signal of the magnetic sensor element using the correction factor.

McMaster teaches a device for measuring a coating thickness using a magnetic sensor element 23.

Miekley teaches a sensor apparatus including a compensating circuit for temperature effects.

However, McMaster does ***not*** disclose or suggest determining a correction factor using a temperature signal and temperature coefficients of the magnetic sensor element or correcting an output signal of the magnetic sensor element using the correction factor. The Office Action ***admits*** McMaster fails to disclose or suggest compensating a signal of the measuring device for changes in temperature. *See* page 3, lines 4-5 of the Office Action. Therefore, McMaster does not teach or suggest at least the features of determining a correction factor using a temperature signal and temperature coefficients of a magnetic sensor element and correcting an output signal of the magnetic sensor element using the correction factor, as recited in Claim 1.

Similarly, Miekley also fails to teach or suggest these features. Rather, the temperature compensating circuit of Miekley corrects for changes in temperature by adjusting a control current (I_H) to maintain a positive temperature coefficient. However, the temperature coefficient is adjusted by selection of resistance values of resistors KR and LR in a desired way to compensate for the negative temperature coefficients of other physical quantities influencing an output signal (U_H) of the sensor device (H). *See* Miekley at column 3, lines 53-63. Additionally, in column 5, lines 27, Miekley also

states: "An approximately temperature independent electrical signal characteristic of the converted magnetic field at the Hall element may be obtained by suitable adjustment and/or selection of the value of the temperature coefficient of the control current. This adjustment, selection or dimensioning of the temperature coefficient may be accomplished especially by selection of the resistance values for the resistors R, KR and LR."

Therefore, Miekley also does ***not*** teach or suggest determining a correcting factor using a temperature signal and temperature coefficients of the magnetic sensor element and correcting an output signal of the magnetic sensor element using the correction factor, because, like McMaster, Miekley does ***not*** determine a correcting factor. Rather, the temperature coefficient of Miekley is adjusted by selecting the resistance values of the resistors K, KR, and R. Therefore, Applicant respectfully submits that McMaster and Miekley, either alone or in combination, do ***not*** teach or suggest each and every feature recited in Claim 7.

To establish *prima facie* obviousness of a claimed invention, all the claimed features must be taught or suggested by the prior art. *In re Royka*, 180 U.S.P.Q. 580 (CCPA 1974) and M.P.E.P. § 2143.03. Therefore, for at least the reasons explained above, McMaster and Miekley, either alone or in combination, do not disclose or suggest each and every feature recited in Claim 7. As a result, Applicant respectfully submits Claim 7 is not anticipated or rendered and should be deemed allowable.

Claims 8-9 and 12-18 depend directly or indirectly from Claim 7 and, thus, incorporate each and every feature recited therein. Therefore, Applicant respectfully submits that Claims 8-9 and 12-18 should be deemed allowable for at least the same reasons Claim 7 is allowable, as well as for the additional subject matter recited therein.

Accordingly, Applicant respectfully requests withdrawal of the rejection.

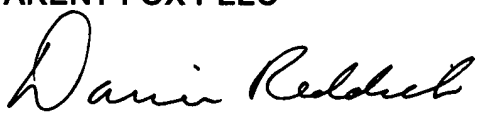
Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding objections and rejection, allowance of Claims 7-9 and 12-18, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 101749-00007**.

Respectfully submitted,
ARENT FOX PLLC



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